RECONCILING ECONOMIC AND POLITICAL REALITIES IN FARM LEGISLATION FOR THE 1990s

by

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Introduction

The quinquennial drama of staging an omnibus farm bill is supreme political-economic theater. The leading role is played by Congress which must convince voters and taxpayers that transfers from them to farmers with considerably more income and wealth makes sense.[1] Congress must convince the food, farm, and environmental lobbies that their conflicting concerns are being addressed and reconciled.

The 1990 farm bill may not be a crowd pleaser because interests of the audience are too diverse to satisfy. The purpose of this paper is to identify key issues for the 1990 farm bill and suggest means to address them. Before turning to specific features of a new farm bill, we set the background.

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[1] The useful measure of farm income and wealth is that of the minimum adequate-size family farm -- sales of $100,000 to $250,000. Those farms in 1987 averaged $66,132 of net income and $713,251 of net worth.

Background

Farm Income

Farm financial stress was a major policy issue during the debate on the *Food Security Act of 1985.* Net cash farm income had increased only $5.3 billion between 1979 and 1984 (U.S. Department of Agriculture (USDA), June 1989), land prices were declining, and farm bankruptcies were on the rise. In contrast, prior to deliberations on the 1990 farm bill, farm income expanded fully $21 billion between 1983 and 1988. Farm land prices have increased 9 percent over their early 1987 lows (USDA, April 1989) and farm bankruptcies have declined.

Because sources of the increase in net cash farm income could influence thinking on the farm bill, we examine those sources. We compare cash income and expenses in 1983 and 1988. Weather confounds any comparison, but we note that both were drought years.

Gross cash income increased from $150 to $170 billion between 1983 and 1988 (Table 1). Higher crop receipts and government payments each accounted for almost a quarter of the increase, while higher livestock receipts comprised nearly half the increase. Fruit, nut, vegetable, greenhouse, and nursery crops were responsible for most of the increase in crop receipts. In general, both prices and production were higher. The 41 percent increase in the price index for all fruits is notable.

The rise in livestock receipts was centered in cattle, calves, and broilers. Higher cattle receipts primarily resulted from 20 percent higher cattle prices and 46 percent higher calf prices. Increased poultry receipts reflected 19-percent-higher prices for broilers and 34 and 54 percent gains in broiler and turkey production, respectively. Dairy and hog cash

receipts were smaller, the former because of lower milk price supports due to continuing surpluses and the latter because of lower prices.

The stability in cash expenses was as notable as the increase in cash receipts (Table 1). The five-year period between 1983 and 1988 was the first since World War II that cash expenses stayed constant. In fact, if the increased expenditures for feeder livestock--which get captured in higher livestock receipts -- is omitted, cash expenses declined about $5 billion. In particular, interest and fuel and oil expenses declined. The $4.6 billion decline in interest was almost entirely the result of a decline in farm debt -- from $193 to $138 billion. Average interest rate paid per dollar of debt remained nearly constant at 11 percent. Smaller fuel and oil expenses reflected an 18 percent decline in prices paid and less use.

Three policy implications can be drawn from this examination. First, farm economic health is unlikely to be a major issue in the 1990 farm bill. Second, receipts for crops covered by the farm bill (corn, wheat, soybeans, cotton, etc.) would have declined if government payments had not increased. This observation is not surprising given the thrust of the 1985 farm bill -- first lowering loan rates to expand demand, especially exports, then, gradually lowering target prices to reduce budgetary costs. Government programs of the early 1980s created excess capacity in those commodities which takes time to work off.

Due to the timing of program payments and the drought of 1988, the initial impact of lower target prices will not be felt until the 1989 or 1990 crop year. Thus, the full impact of the 1985 farm bill on farm income will not be known until after the 1990 farm bill is written. This increases the chance that the 1990 farm bill will have to be rewritten sometime soon after its passage, but it will be difficult to generate widespread public

support in 1990 for major changes in the farm bill to benefit the program commodities.

Table 1. Net Cash Farm Income by Selected Components, U.S. 1983 and 1988.

Component[a]	1983	1988[b]
	($ Billion)	
Net Cash Income	36.9	58.0
Gross Cash Income	150.4	170.0
Crops (incl. net CCC loans)	67.1	72.0
Target Price Crops	26.7	24.0
Oil Crops	13.5	13.0
Fruits and Nuts	6.1	9.0
Vegetables	8.5	10.0
Greenhouse and Nursery	4.5	7.0
Other Crops	7.8	9.0
Livestock	69.4	78.0
Cattle and Calves	28.7	34.0
Dairy	18.8	17.0
Hogs	9.8	9.0
Broilers and Turkeys	6.1	10.0
Other Livestock	6.0	8.0
Government Payments	9.3	14.0
Farm Related[c]	4.5	6.0
Cash Expenses	113.5	113.0
Farm Origin Inputs	33.5	36.9
Livestock	8.8	13.2
Manufactured Inputs	20.9	17.6
Fuels and Oil	7.5	4.6
Interest	20.6	16.0
Other Expenses	38.5	42.5

SOURCES: USDA, *Agricultural Outlook*, June 1989. USDA, *Agricultural Income and Finance*, May 1989.

[a]Totals may not equal sum of components due to rounding.
[b]Forecast.
[c]Income from machine hire, custom work, sales of forest products, and other miscellaneous cash expenses.

Third, unless demand and hence receipts increase substantially, net cash farm income is unlikely to increase as much in the next five year as between 1983 and 1988. To be sure, a tighter supply-demand balance could add to farm income. Excess farm

production capacity is down substantially from the mid-1980s (Tweeten, October 1988). Yet, net income may decline. The reasons are (1) lower government income support levels and (2) increasing expenses because of higher input prices due to general inflation and because of higher planted acres due to increased demand and lower stocks. This observation suggests cost reduction could be a hidden issue in the 1990 farm bill debate.

Expected average annual U.S. farm export expansion at an average annual rate of 3 percent in the 1990s and the possibility of an even higher rate could create a more favorable supply-demand balance and financial outlook for U.S. farmers, suggesting opportunities for withdrawing government from farm price supports (Tweeten, January 1989). History suggests, however, that farm prosperity tends to raise farm price supports rather than cover a phase out. And farm policy must be designed "for all seasons" because predictions of the future are subject to large error.

International Trade

The outcome of the General Agreement on Tariffs and Trade (GATT) negotiations, to be completed in 1990, could materially influence farm commodity legislation. GATT negotiations could postpone a new farm bill until 1991. However, Congress is unlikely to sacrifice power by allowing a new farm bill to be dictated by a GATT agreement. Hence, a farm bill is likely in 1990.

With Carla Hills the new U.S. Trade Representative under the Bush Administration, with rejection of full decoupling by major trading nations as evident in the breakup of the GATT trade ministers meeting at Montreal in December 1988, and with the need to begin serious bargaining and compromise if the Uruguay Round is to be completed in 1990, the

U.S. shifted its position in early 1989 to accept negotiations on partial reductions in agriculture trade barriers and commodity program market distortions without the precondition of an agreement to end trade distorting subsidies. That brings the U.S. and Cairns group (14 agricultural exporters) positions on trade closer together and isolates especially Western Europe as the major impediment to agreement. With the trade ministers formally committed to "substantial reductions" in trade distorting agricultural policies, the stage would appear to be set for major reform in farm commodity and related trade policy. Politics will sharply limit concessions by all parties to negotiations, however.

The best guess is that GATT negotiations will result in:

* Reducing export subsidies such as the U.S. Export Enhancement Program and Targeted Export Assistance in return for like concessions from the European Community.
* A modest (perhaps 10-25 percent) reduction in support levels as measured by Producer Subsidy Equivalents (PSEs) spread out over several years.[2]
* Restrictions against substitution of more for less export enhancing (import reducing) market interventions.[3] However, programs with generally favorable social benefit-cost ratios such as agricultural research, extension, and education will be allowed.

Clayton Yeutter undoubtedly carried from the U.S. Trade Representative position to his Secretary of Agriculture position a commitment to freer trade, decoupling, and to

[2] PSEs would be evaluated for this purpose at constant prices to avoid the problem of adjusting to a target continually moved by current economic conditions.

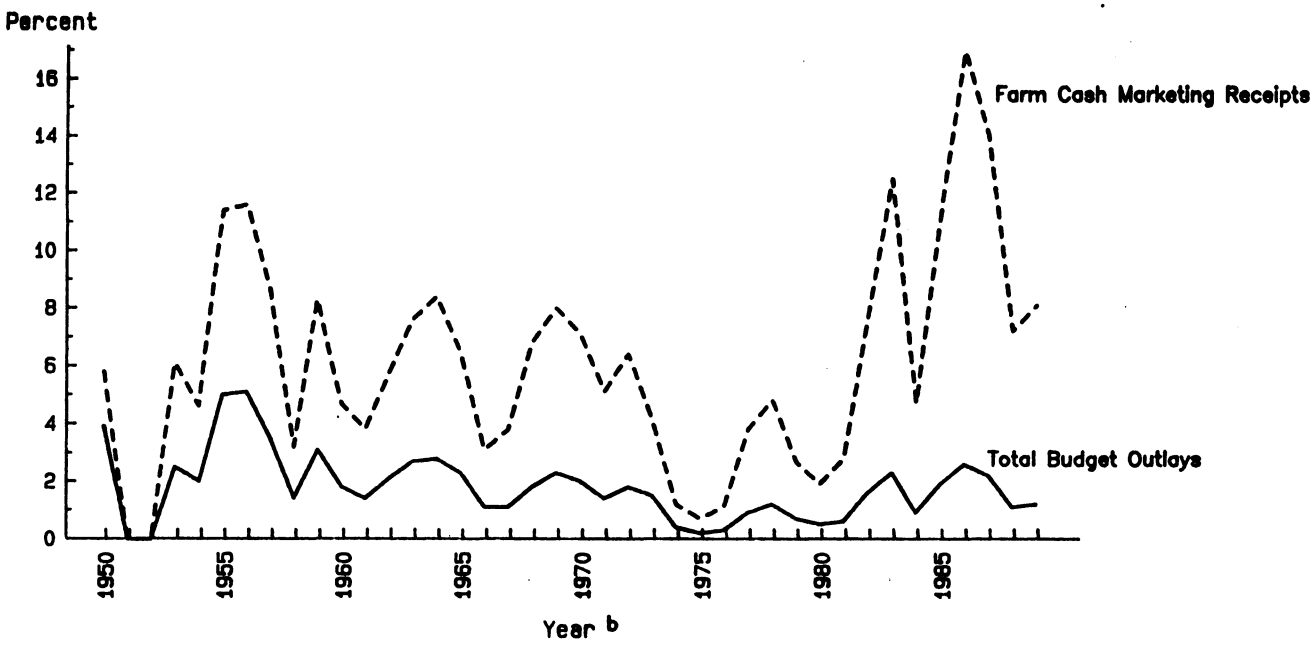
[3] An exception likely to be favored by the U.S. is allowing substitution of direct payments for supply control.

being competitive in international markets. More recent expressions of willingness of the U.S. to settle for less than complete decoupling in international trade negotiations probably is matched by willingness to accept less than full decoupling in U.S. commodity programs. However, Secretary Yeutter will resist higher loan rates.

Federal Budget Expenditures

Between 1950, the first year consistent budget numbers become available, and the late 1970s, expenditures on farm programs as a share of total federal outlays and farm gross cash receipts trended erratically lower (Figure 1). However, both trends were reversed in the 1980s. From fiscal year 1981 (FY81) to FY89, farm programs claimed 1.7 percent of federal outlays, far higher than the 0.6 percent from 1974 to 1981 and higher even than the 1.6 percent from 1966 through 1973. Also, farm program expenditures accounted for 10.3 percent of cash farm marketing receipts between 1982 and 1988, compared with 7.6 percent between 1953 and 1964, 5.6 percent between 1965 and 1973, and 2.4 percent between 1974 and 1981.

Budget projections for the next three fiscal years suggest farm program expenditures will claim about 1 percent of federal outlays and provide 6 to 8 percent of cash farm marketing receipts. Despite the decline in recent years, these projections are still larger than the shares for the last quarter century.



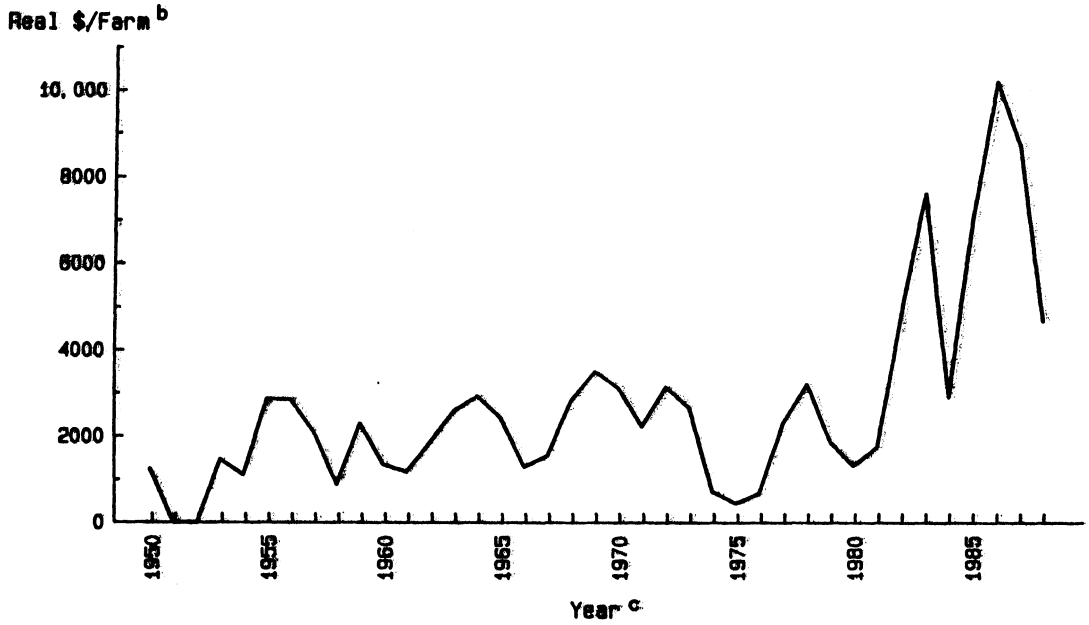
[a]Includes federal expenditures for Commodity Credit Corporation, National Wool Act, and Sugar Act.
[b]For federal expenditures, fiscal year data. For cash marketing receipts, calendar year data.

SOURCES: Spitze, 1986.
Executive Office of the President, Fiscal Years 1987-1989.
USDA, October 1988.
USDA, June 1989.

Figure 1. Federal Outlays for Farm Price and Income Support Programs as a Percent of Total Budget Outlays and Farm Cash Marketing Receipts, U.S., 1950-1988.[a]

Cuts in commodity program expenditures seem especially likely if the debate focuses at the individual farm level. Real per-farm cost of farm programs, measured in 1982 dollars using the GNP implicit deflator, fluctuated erratically in the $1,000 to $3,500 range between 1950 and 1981 (Figure 2). Since 1981, expenditures have averaged $5,738, with a peak of $10,256 in 1986. Current projections suggest a real per-farm expenditure of $4,000 to $5,000 over the next couple of years. To reduce federal expenditures to the high end of the 1950 to 1980 period, a 10 to 30 percent reduction in farm program expenditures would be required. An even larger cut would be needed if average per-farm expenditures were to

return to the 1950 to 1980 average.



[a]Includes federal expenditures for Commodity Credit Corporation, National Wool Act, and Sugar Act.
[b]Nominal dollars deflated by GNP deflator, 1982=100.
[c]Fiscal year expenditures divided by farms reported for corresponding calendar year.

SOURCES: See Figure 1.

Figure 2. Real Federal Outlays for Farm Price and Income Support Programs on a Per Farm Basis, U.S., 1950-1988.[a]

Part of the larger government share in the 1980s can be attributed to direct income payments replacing income previously earned through larger cash receipts resulting from high loan rates and production controls. Given this change, it is difficult to use history to project what is a politically sustainable claim the farm sector can make on the federal budget. Given recognition that commercial farming is not a low-income or low-rate-of-return industry, the sustainable amount depends partly on how much the public perceives

that commodity program outlays bring lower food prices and a more assured food supply. While it is too early to definitely conclude what is the impact of lower price supports on retail food prices, it is interesting to note that, despite the drop in price support rates beginning in 1986, prices paid for food consumed at home by consumers have increased at the same rate as general consumer price inflation over this period (Dunham).

In conclusion, as federal outlays for farm programs have declined from $26 billion during FY86 to a projected $10 - 14 billion during FY89-91, the issue of farm program cost has declined. However, pressure from Gramm-Rudman-Hollings to reduce the federal budget deficit, as well as pressure to fund the savings and loan bailout and new initiatives such as child care and alternative fuels, will keep the budget a major issue. The history of farm program expenditures and current political dialogue suggest that maintaining currently projected commodity expenditures will require considerable political skill by farm interest groups.

Price and Income Support Instruments

Nonrecourse loans and target prices likely will continue to be principal instruments to support and stabilize the farm and food economy. In the search for means to reduce government costs of programs while addressing real needs, it is well to review principal support instruments' performance in relation to objectives.

Loan Rate

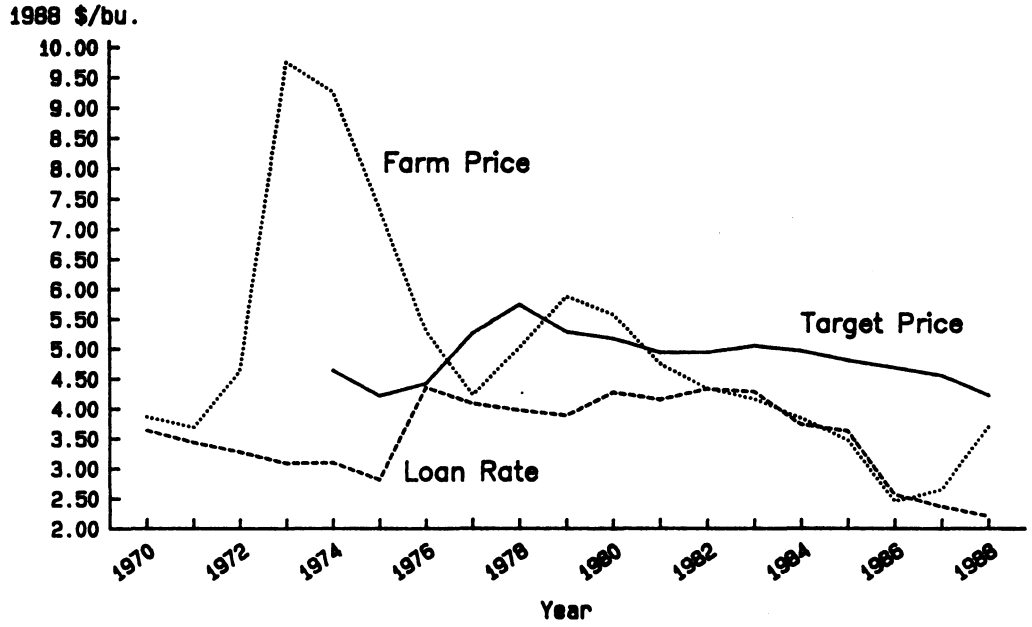
The nonrecourse loan rate serves many purposes. It provides price stability by

setting the floor for market prices. (An exception is when PIK stocks are released to depress prices -- a less likely option with depleted stocks.) The loan rate also establishes the degree of reserve capacity: A high loan rate builds stocks and requires acreage diversion; a low loan rate leaves excess capacity at zero and stocks in private hands.

Export markets for major commodities are inelastic in the short run but elastic in the long run, hence high loan rates not only price the U.S. out of world markets but also reduce receipts from farm exports over time. Many have advocated raising loan rates to reduce budget exposure in the 1990 farm bill. The damage to markets from high loan rates is apparent from results of the 1981 farm bill. Raising loan rates as market prices rose in the 1970s created an unfortunate legacy of lost export markets and of excess capacity in the early 1980s. That policy lesson should not go unheeded.

Figures 3 through 6 provide several observations regarding real price support levels and their relationship to market price. (Basic data from U.S. Department of Agriculture, April 1989 and earlier issues.)

* For the four commodities shown in Figures 3 through 6, real loan rates increased substantially in the 1970s. (Commodity prices were deflated by the implicit deflator of the Gross National Product, 1988 = 100.) One might expect the government to initiate an exit from commodity programs by reducing loan rates in a time of short supplies, high prices, and minimal excess capacity. The opposite appeared to be the case. That is, the government raised real loan rates in the mid-1970s in part to win "cheap" votes.



SOURCE: USDA, June 1989 and earlier issues.

Figure 3. Real Wheat Price and Support Rates, 1970-1988.

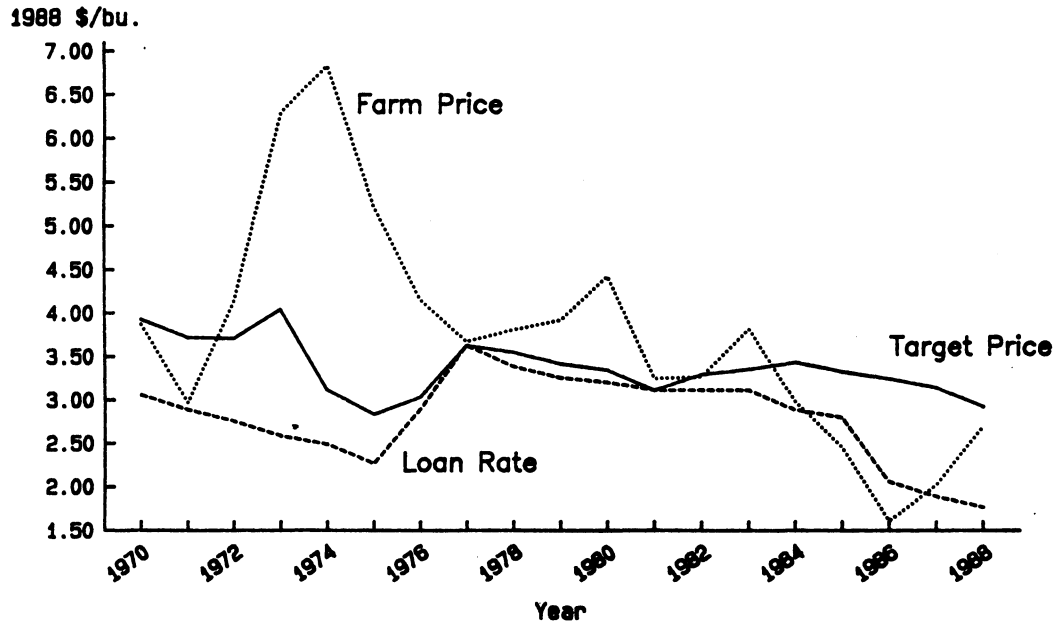


Figure 4. Real Corn Price and Support Rates, 1970-1988.

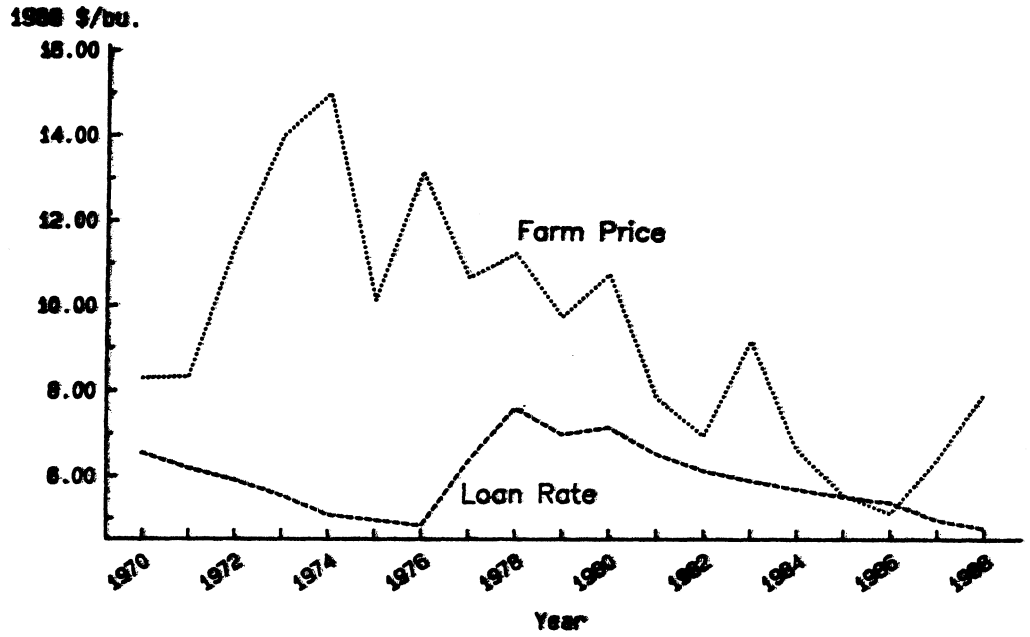


Figure 5. Real Soybean Price and Support Rates, 1970-1988.

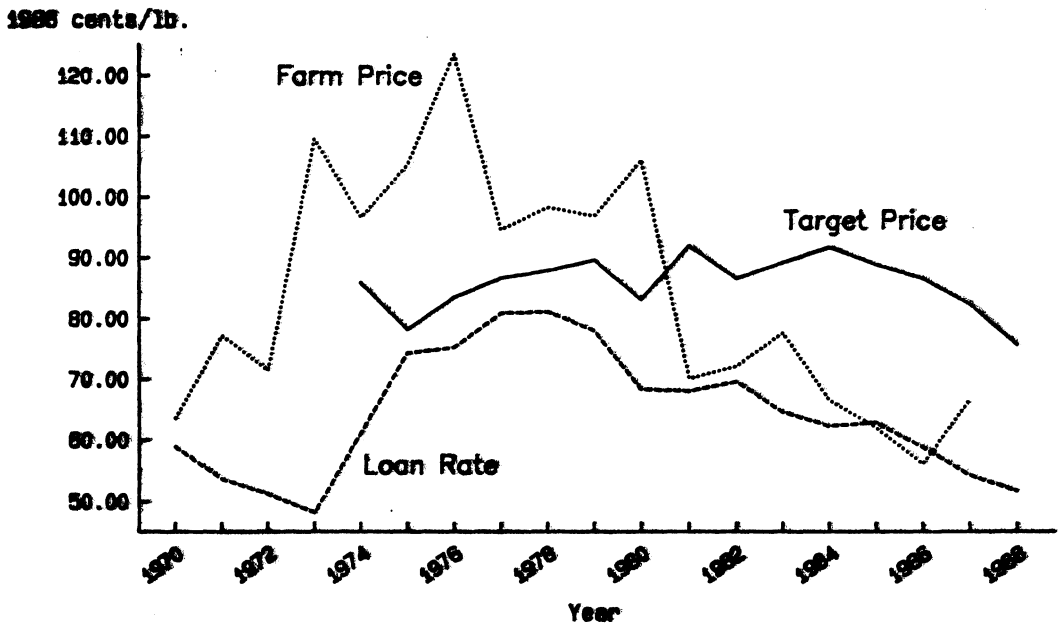


Figure 6. Real Cotton Price and Support Rates, 1970-1988.

Legislators could boast to producers that they voted to raise loan rates, believing that the action would not bring additional budget exposure because loan rates would not be challenged by market prices. Events subsequently proved that a costly miscalculation.

* Real loan rates declined for each of the commodities shown in the 1980s. By 1988, real loan rates were lower than in previous years. However, if real loan rates were adjusted for productivity, it is not necessarily clear that adjusted loan rates would be lower in real terms in 1988 than in the early 1970s.[4]

The *market loan* provides a direct payment to producers equal to the difference between the nonrecourse loan rate and the market price (at least up to a limit), hence it encourages the producer to place supplies in the market and avoids stock accumulation. The *market loan* now used for cotton and rice could be utilized for other grains and soybeans under FSA85. At issue is whether that would be wise. The market loan converts the nonrecourse loan to a direct payment but is not decoupled because the entire output on allowable acres is eligible for coverage. The market loan can keep prices competitive in international markets, but has several disadvantages:

1. Foreign competitors strongly object to dumping commodities abroad at prices below those received by U.S. producers of those commodities.
2. The market loan increases budget exposure. Treasury cost can be kept down by reducing target prices, however.

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[4] Commodity terms of trade measured by the ratio of the index of prices received by farmers to the index of prices paid by farmers averaged nearly 50 percent of the 1910-14 ratio in the 1980s. Corrected for productivity, however, the parity ratio measured by factor terms of trade (real price received per unit of real resources) averaged approximately 160 percent of the 1910-14 ratio (see Tweeten, October 1988).

3. Incentives for stock accumulation may be inadequate, making the U.S. and the world vulnerable to inadequate food supplies when weather is unfavorable.
4. If the program is not properly managed, it too can lead to excess stocks -- as for cotton in 1988/89.

At issue is the very purpose of farm programs and price supports. Are they to be a safety net to tide farmers over temporary economic setbacks? Or are they a permanent trapeze on which the farming economy must always perform. Loan rates can be increased to temporarily reduce Treasury outlays but at the long-term expense of U.S. consumers and taxpayers. There is merit in setting nonrecourse loan rates at 75 percent of a past five-year moving average of market prices -- a support level low enough to avoid excessive stock accumulation but high enough to reduce some of the variation in farm prices.

Target Price and Deficiency Payments

Much discussion has focused on the target price and production base for deficiency payments for 1990's farm legislation with an eye on budget savings and decoupling. The real target price declined 26 percent by 1988 from its peak for wheat, 19 percent for corn, and 18 percent for cotton (Figures 3 through 6). Thus, adjustments can be made in support rates despite political opposition.

Whatever the fate of decoupling in GATT, the concept of striving for pure transfers that do not distort efficient market signals for production, consumption, and trade remains very much alive. "Decoupling" largely refers to direct payments, a commodity program approach long favored by economists but lacking support from producers. In theory, a payment is decoupled as long as program yield and acres on which supports are based do

not depend on present or future acreage or production. Whether the new base covers 60, 80, or 100 percent of the past base makes no difference for decoupling -- if the base is unresponsive to present and future decisions.

Options with a given average annual federal payment to farmres are for the deficiency payment foundation to be (1) a high production base acres and low target price or (2) a low production base acres and a high target price. The choice of which payment strategy to pursue depends on the purpose of programs. If the purpose is to preserve small-to-mid-size family farms by supplementing income and compensating for their diseconomies of size, then the optimal system is high target prices and severely limited base acres on which a farm can receive payments. This will give "economies" to small farms but will do little to dampen annual variation in gross receipts on commercial farms -- arguably their most serious problem.

On the other hand, if the purpose of programs is to maintain viability of the farm production plant by cushioning incomes of all commercial farms from variation in farm prices, then the appropriate policy is to allow large bases for target prices covering only economic costs of production. There is little or no point in providing target prices above all economic costs on all farms and all production because incremental benefits (economic rents) are bid into land prices and rents, thus will be eventually lost to hired workers, renters, and new landowners. Producers would be paid the difference between the market price (or loan rate) and the market price on normal production of the full, historic base.[5]

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[5] Blandford et al. have proposed the Production Entitlement Guarantee (PEG) for the U.S. and other GATT signatories. Deficiency payments will be tied to production only on up to 80 percent of a historic base. This proposal contains several shortcomings:

* PEG is not decoupled. Producers would have to produce all their base (e.g. 80 percent of historic production) to be eligible for full payments. The PEG is a production subsidy to that limit.
* PEG does not avoid the major impediment to adoption of direct payments in Europe and Japan -- high costs now paid by consumers shifted to reluctant taxpayers who, in the case of the European Community, have already revolted against high costs.
* Unsuitability to the U.S. conditions. The U.S. has already progressed beyond PEG in many ways. It allows

Payment limitations can be used to restrain the total budget of farm income support and stabilization. At the producer level payment limitation is consistent with equity but can limit size and efficiency associated with economies of size known to characterize farming (see Knutson *et al.*). Because smaller farms may have substantial off-farm income, payment limitations based on crop production do not necessarily target program benefits to the needy.

Focusing more program benefits on mid-size farms requires greater reliance on direct payments and less reliance on supply control. Successful supply control requires participation by the large farms accounting for a sizable share of farm output. Price enhancement benefits of supply control targeted narrowly to mid-size farms would spill over to large and small farms but would require a virtual end to all production on mid-size farms in a year of considerable excess capacity.

Narrowly targeting benefits to mid-size and/or smaller farms not only would mean foregoing production control and price enhancement policy options, but also would diminish the role of program yields and base acreage. Overall output of crops and livestock or total production assets are better measures of size than are acreages in production of program crops, hence, the former could be emphasized in targeting.

If preserving family farm operators is the prime objective of commodity programs, another option is to provide payment only to the person engaged in the day-to-day operation of a farm. Each farm could designate only one operator. That operator would

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producers (under 0/92 or 50/92 options) to produce less than their base and remain eligible for direct payments.

* PEG could encourage the dumping of additional production on world markets. Dumping farm products on world markets at less than production costs likely would be more widespread than currently, understandably bringing outrage from competing exporters who historically have not had high supports.

The chief advantage of PEG is that it is a first step toward decoupling while allowing countries to continue policies for self-sufficiency. Because the latter is important to a relatively few countries such as Japan, a useful modification of PEG would be to allow countries to administer it either coupled (as above) or decoupled. The latter procedure would make payments whether farmers produce or not. This procedure would be more acceptable to the U.S. which has already moved a long way towards decoupling.

be subject to payment limitations but he/she could divide the single payment among partners as desired. Nonoperator landlords, hired managers, and hired labor would receive no payment. Administration of current programs illustrates that payment limitations are notoriously difficult to enforce. Targeting of direct payments can delay but not stop the shifting of subsidies benefits to landowners through capitalization of benefits into land values.

In summary, a gradual reduction of payments to very large producers over time would reduce the immediate shock of tighter payment limitations. However, questions would remain regarding (1) the workability of voluntary paid production control programs excluding producers who supply most of the output, (2) of punishing large (on average most efficient) producers by subsidizing competition of their smaller-farm neighbors, and (3) the administrative complexity of enforcing tight payment limitations. To remove incentives for raising acreage or yield to obtain more program benefits, an alternative is to freeze program yield and acreage base as long as payments are continued. A fixed program average and base would be less inducement to produce for the program rather than for the market but eventually would provide an unrealistic foundation for controlling production or providing direct payments.

Tieing payments to land encourages operators to remain in farming, and distorts market incentives. Allowing payments to attend operators even if they discontinue farming would further decouple but might be objectionable to the public. As noted earlier, any payments at all increase output, other things equal, because they help to overcome capital constraints facing all producers. Thus the ultimate decoupling is to phase out all income transfers and price supports.

Cropping Flexibility

The 1981 and 1985 farm bills created production rigidities by controlling acreage of specific crops. For example, in 1988 too little oats and soybeans were planted relative to corn. One means to give more flexibility is to continue 1989 program features allowing oats to be substituted for other crops and for soybeans or sunflower to be substituted for up to 25 percent of program crop base without loss of base. Another option is to return to the concept of Normal Cropland Acreage (NCA) used in its most flexible form in the early 1970s. Under a flexible NCA, a farmer could set aside to conserving uses a prescribed acreage to be eligible for program benefits, and could plant any crop on the remaining NCA.

Current 0/92 and 50/92 provisions raise flexibility by allowing producers to plant less than their base with minimal sacrifice of payments and no loss of base. A major distortion remains, however. Government programs encourage production of crops with the highest target (or loan rate) prices relative to market prices. Table 2 indicates that on a typical resource situation in Ohio corn produced under commodity programs in 1989 provided an expected net return of $163 per acre compared to a net of $156 per acre for soybeans. Yet soybeans were in very short supply relative to corn. In the absence of a program, the market would provide $120 of net return per acre for corn, well under the market net return of $156 for soybeans. Market price returns are a superior measure of scarcity value and social return than returns including government payments. Thus programs cause farmers to produce corn already in excess supply when in the absence of programs soybeans would be the crop of choice at the margin.

Soybeans illustrate how commodity program distortions influence trade. Although soybean intervention and support is minimal, the spillover from acreage diversion and target prices for other crops has damaged U.S. foreign markets. While the U.S. diverted millions of hectares from crop production from 1980 to 1988, Argentina and Brazil filled the gap and sharply increased their share of world soybean exports. With a return to NCA and continuation of deficiency payments, farmers still would have incentives to produce corn or wheat rather than soybeans even if market net returns (excluding deficiency payments) were higher for soybeans.

Table 2. 1989 Production Budgets Per Acre, Conventional Tillage, Ohio.

	Corn (120 bu/ac)		Soybeans (40 bu/ac)
	No Program	Program	
Receipts	$270	$300	$260
Variable Costs	150	137	105
Return above Variable Costs	120	163	156

Source: Carter et al.

One option is to more closely align support rates among crops. Data in Table 3 indicates that the corn target price support is highest relative to full economic cost of production, encouraging overproduction of corn relative to other crops. Soybean producers for the most part do not seek target prices so raising soybean supports is not the answer. And grain, wheat, and cotton producers would not want their target prices reduced to the level (zero) provided soybean producers.

One attractive alternative to respond to market signals is by combining all payments into a single base from past history. A lump-sum payment would continue each year no matter what farmers produced but the payment would be reduced at a preset rate over time. The Boschwitz-Boren Bill of 1985 contained such a provision with payments to be reduced 50 percent in five years. A less rapid rate of reduction in payments, say 3 percent per year, might be politically more palatable. Because decoupling of payments would rule out the acreage reduction program, production control could be limited to the CRP alone. The market could handle residual adjustments given the lower excess capacity projected for the 1990s than characterized the 1980s (Tweeten, January 1989). A weakness (non-targeting) and advantage (decoupling) is that the new payment base would not be responsive to individual crop prices. Deficiency payments could be based on deviations from a target price *index* of covered commodities including soybeans.

Table 3. Total Economic Cost of Production, Target Price (Loan for Soybeans), and Support Price as Percent of Production Cost, Selected Crops, U.S.

Item	Soybeans		Corn		Wheat		Cotton	
	1986	1987	1986	1987	1986	1987	1986	1987
	($/bu)		($/bu)		($/bu)		($/lb)	
Total Economic Cost	4.83	4.95	2.01	2.05	3.92	3.64	0.75	0.63
Target Price (loan for soybeans)	4.77	4.77	3.03	3.03	4.38	4.38	0.81	0.79
As Percent of Economic Cost	99	96	151	148	118	120	108	126

Source: U.S. Department of Agriculture (February 1989 and June 1989).

A related alternative is a payment base on each farm which responds to market

price but not to production of that farm. The proposal is similar to Secretary of Agriculture Brannan's plan of the late 1940s and to a proposal by Luther Tweeten before the Senate Agriculture Committee in 1985. The proposal is a modification of the current deficiency payment. The direct payment base quantity would be current program yield times the crop base for each commodity and would not change with current production. Production controls would be terminated and producers would receive the market price for output. Their payment would be the difference between the target price and market price multiplied by the quantity base for each commodity. Payment limitations per recipient and a schedule of future reductions in target price and/or payment base could be established by policymakers.

In short, phasing out of production controls in favor of direct income transfers to farmers is one means of promoting a market-centered agriculture and of focusing benefits on specific groups at minimal lost income to the nation. Still to be sorted out by the political process would be thorny issues of appropriate targeting of benefits, acceptance of "welfare" payments by producers, vulnerability of payments to political whims, and stabilizing food supplies to consumers.

Environmental Issues

An emerging group of farm policy actors -- environmentalists -- were primarily responsible for the soil conservation provisions in the 1985 farm bill. Four provisions were the strongest commitment ever to environmental concerns since omnibus farm commodity legislation was first enacted in 1933: (1) *conservation reserve* - farmers are paid for taking land out of production for 10 years; (2) *sodbuster* - farm program benefits are

denied to producers who break out new, highly-erodible land; (3) *swampbuster* - program benefits are denied to farmers who convert natural wetlands to crop land; and (4) *conservation compliance* - program benefits are denied to farmers who do not follow an approved conservation plan on erosion-prone land. While farmers would like some relaxation of some provisions, only minor changes appear likely. The major outlines of society's policy with respect to soil erosion are in place. Only a substantial surge is food prices would appear to be a strong enough factor to alter this commitment.

In the 1990 farm bill, environmentalists will focus more on chemical "contamination" of the environment. Widespread public concern over the role agricultural chemicals play in pollution of ground and surface water is being continually reinforced by front page headlines that underscore environmental degradation: toxic waste, oil spills, and the greenhouse effect.

The environmental community maintains that farm policy encourages farming practices contributing to environmental degradation. This is part of a broader concern with the environmental effects of modern farming practices on the long-term health of the biosphere.

Three inconsistencies of farm policy with environmental protection are noted. First, by increasing farm income, farm commodity programs provide capital and incentives to use more inputs. Second, farmers respond to supply control programs by setting aside their marginal cropland and applying more land-substituting inputs such as fertilizers and pesticides on the ground that is planted. For example, between 1984 and 1987, cropland used for crops declined 11.3 percent, reflecting increased acreage set asides. In contrast, use of agricultural chemicals decreased only 8.3 percent. Third, the use of historical

planting decisions to determine base acres which in turn determine a farmer's government payment encourages farmers to maximize current program crop acreage. Consequently, planting of non-program crops such as legumes and forages is discouraged. Use of these crops in rotation with program crops is a key practice in low-input, sustainable agricultural systems using less chemicals than conventional planting rotations.

Several proposals address these problems. One is targeting land retirement programs to environmentally sensitive land. One land targeting program is to expand the Conservation Reserve Program (CRP) to include environmentally sensitive ground, notably that which plays an important role in ground or surface water quality. This expanded role may require increasing the current 45 million-acre limit on the Conservation Reserve Program. Senator Wyche Fowler's *Farm Conservation and Water Protection Act of 1989* contains these provisions.

Expanding the number of acres in the Conservation Reserve Program would be costly. Thirty million acres are already in the CRP. These are probably low-program-cost acres because they had the most to gain from entry into CRP. Furthermore, as the number of CRP acres increase, supply of commodities decline, thereby increasing price. The higher the commodity price, the higher the cost of getting farmers to forego production. Thus, an expanded CRP could result in substantially larger federal budgetary outlays and could increase the price of food. The latter may work against long-term environment efforts if consumers are intolerant of higher food prices. Expanding the CRP may diminish the local economic base to a critical level, especially in rural counties already enrolling large acreages.

An alternative to expanding CRP is for the federal government to purchase or lease cropping easements from farmers on environmentally sensitive land. Farmers could use the land for hay, pasture, or other low-chemical, noncrop, low erosion uses. Allowing such uses essentially limits the budget cost to the difference in economic returns between the program crop rotations and these alternative uses. By allowing haying or grazing and by combining the "carrot" of payments with the "stick" of an environmental compliance provision, the crop easement would entail less Treasury cost per unit of crop production removed than would other voluntary diversion programs. However, hay and cattle producers might view such easements with alarm. Restrictions on the use of CRP and set-aside ground in part reflect the lobbying efforts of farm groups representing these producers. Use of long-term easements to retire land above the 30 million acres in CRP might be viewed as a reasonable compromise between livestock interests which got grazing and haying restricted on existing CRP land and the local economy which would benefit from the grazing and haying allowed by crop easements.

Another targeting option is to supplement or replace the Conservation Compliance provision with an Environmental Compliance provision. This provision would require producers who wish to remain eligible for commodity program benefits to follow an approved environmental plan (regulating timing, quantities, application methods, etc. for chemicals) on land contributing to groundwater contamination in areas of low water quality. Expanding conservation compliance to regulate use of chemicals would create administrative difficulties of ensuring compliance and increase the cost of participating in farm programs. However, similar problems have been handled under the current conservation compliance program. Farmers may opt out of the program, compromising supply control and

environmental objectives. Simultaneously reducing soil erosion and chemical use may be incompatible goals with current technology on row-crop intensive farms. For example, no-till can significantly reduce soil erosion, but may increase chemical runoff due to the need to use more herbicides for effective weed kill.

Farm program benefits could be re-targeted from large producers to "environmentally safe" producers. The difficulty in monitoring low-chemical practices and the potential for substantial political resistance from farm groups suggests use of a less restrictive approach. Allowing rotations without losing crop history might reduce the use of costly chemicals, but the amount of acres a farmers would plant to high income crops would also decline. Participation might be low. Another confounding issue is justice for farmers who already practice rotations with legumes and forages because of livestock feed needs or personal commitment to rotations. By including in bases nonprogram crops currently in rotations, this provision could lead to a large increase in base acres and farm program cost.

In summary, concerns about the environmental effects of agricultural production practices are probably at a historical high. Alternatives include changes in farming practices by farmers, the tying of farm income and price support programs to environmental goals, and/or the regulation of farming practices through non-traditional farm agencies such as the Environmental Protection Agency. Commercial farmers and environmentalists together potentially can wield political power of steamroller proportions. Sound principles and reliable data are needed to channel that power toward constructive ends.

A satisfactory data base on the environmental impact of modern farming techniques does not exist. Definition of such terms as "environmentally sensitive", identification of tolerable levels of chemical residues, and effective means of monitoring a farmer's

compliance with environmental programs will all require substantially more research if the enacted programs are not to cause more problems than they solve.[6] Thus, increased research funding seem necessary if prudent and effective policy relative to farm chemical practices is to be enacted.

Other Topics

Reserve Stocks and Stability

An important accomplishment of farm commodity programs has been to reduce variability in farm prices and incomes and in food prices and quantity. Decoupling and reliance on direct payments do not stabilize food prices and quantities. The private trade alone may not hold stocks sufficient to meet felt needs of the public for food security. Whether government incentives are needed to encourage the private trade to hold sufficient buffer stocks is a hotly debated issue among economists. While the private trade may not hold adequate stocks, it is possible that government interventions to stabilize supplies will continue to entail higher social costs than did the market failure they were intended to correct.

Options include (1) a government-held emergency reserve, (2) a farmer-owned-reserve, (3) Commodity Credit Corporation reserves, and (4) a payment to the private trade to store buffer stocks from year to year. An example of the latter would be a government payment of 3 cents per bushel per month of buffer stocks stored by the private

[6]The soil conservation programs of the 1985 farm bill were based in part on the 1977 National Resource Inventories data collected by the Soil Conservation Service and years of research by private and university scientists (for example, see National Association of Conservation Districts, *National Agricultural Lands Study*).

trade. No acquisition or release policy would be imposed. Decisions regarding when to acquire or release stocks would be made by the private trade. Payment limits could be set for individuals and firms. The storage program could be confined to food grains; livestock feeding and export markets offer considerable buffer for other commodities.

Disaster Assistance

Less than one-half of eligible acreage participates in multiple-peril crop insurance despite subsidies from government. Many producers do not participate because they feel confident the government will provide assistance in the case of a disaster. The 1988 experience of large government disaster payments to drought victims reinforced that belief.

All disaster payments including subsidized crop insurance encourage crop production in high risk areas better suited for grazing or recreation. Disaster payments transfer funds from low wealth taxpayers to high wealth producers quite capable of purchasing insurance. A reaffirmation in new legislation of the principle of no disaster payments in counties where multiple-peril crop insurance is available will lack credibility after the 1988 experience. An alternative is to require all participants in commodity programs to hold multiple-peril insurance, but that option lacks political appeal. The 1990 farm legislation is unlikely to resolve the highly important issue of how to reduce risk to farmers and consumers at low cost to the Treasury and low infringement on managerial prerogatives of producers.

Program Complexity

Farm policy has become too complex to legislate. Congress has responded with commodity legislation giving the Secretary of Agriculture administrative discretion to impose

any one of a number of policies ranging from, for example, mandatory controls to direct payments for grains. Programs are now so complex that few farm operators can interpret the rules without professional assistance. This complexity awards economic rent to managers with legal minds and "taxes" other managers. Opportunities are enhanced for economic rents from fraud, special favors, and other forms of corruption in administration of programs. The next farm bill needs to search for options reducing complexity while increasing flexibility of programs to address legitimate concerns of an unstable farm economy. Space limitations preclude addressing that topic here.

The Sugar Program

The nation is rapidly approaching the need for export subsidies to dispose of excess sugar produced because of price supports set well above world price levels. The U.S. has strongly criticized the European Community for a similar policy and now needs to make adjustments. The General Agreement on Tariffs and Trade is expected to rule that U.S. sugar quota preferences for politically favored nations violate the organization's rules. The U.S. will need to decide whether to continue the current program of high sugar prices all the time or a more market-oriented policy giving high prices only some of the time. Again, space limitations preclude adequately addressing these issues, but an appropriate place to begin is with lower price support and tariff protection for the industry.

Conclusions

The economic environment in farming as we debate a farm bill for the 1990s is

much more rosy than that for the 1985 farm bill. The outlook for a more favorable supply-demand balance and less need to reduce excess capacity and stocks creates opportunities to revise program objectives and to lower the government profile in agriculture.

Three major changes in FSA85 are needed to make it applicable to the 1990s:

1. *More flexibility in cropping.* A return to the Normal Cropland Acreage (NCA) of the early 1970s, the preferred approach, would require producers to set aside a prescribed portion of their cropland to soil conserving uses and allow them to plant whatever they wish on remaining acres.

   An option to reduce economic distortions created by deficiency payments is to lump all payments into a single sum which would be provided regardless of production of any one crop but could be used initially to pay farmers to divert a portion of Normal Cropland Acreage to soil conserving uses when diversion is needed.

2. *Reduce budget exposure.* Chief options are to reduce deficiency payments by reducing target prices say 2-5 percent per year or by reducing base acres on which deficiency payments are made by a like percentage. Loan rates can be set at 75 percent of a 5-year moving average of past market prices.

3. *Address environmental issues.* Many contend that current commodity programs are outdated, have outlived their usefulness, and are middle-class welfare the nation can no longer afford. If there is truth in these contentions but programs are to continue, then at least, the argument goes, the public has a right to expect something in return from producers electing to receive program benefits. Under the *conditionality* of environmental compliance, a

farmer participating in a commodity program would be required to follow an approved soil and water conservation plan, including provisions for groundwater quality protection.

Other important issues worthy of careful attention in 1990 legislation but treated only briefly in this report include instability in agriculture (including provision of disaster payments), program complexity, and sugar supports.

References

Blandford, David, Harry de Gorter, Bruce Gardner, and David Harvey. First Quarter 1989. There is a way to support farm income with minimal trade distortions. *Choices* 4:20-25.

Carter, Bryson et al. 1989. Ohio Crop Enterprise Budgets, Grains and Forages. MM-388. Columbus: Ohio Cooperative Extension Service, The Ohio State University.

Dunham, Dennis. March 1989. Food Costs from Farm to Retail in 1988. Agriculture Information Bulletin No. 563. Washington, DC: Economic Research Service, U.S. Department of Agriculture.

Executive Office of the President, Office of Management and Budget. Various years. *Budget of the United States Government*. Washington, D.C: U.S. Government Printing Office.

Knutson, Ronald et al. 1988. Economic impacts of payment limits. College Station: Agriculture and Food Policy Center, Texas A & M University.

National Association of Conservation Districts. November 1980. *National Agricultural Lands Study - Soil Degradation: Effects on Agricultural Productivity*. Interim Report Number 4. Washington, DC.

Spitze, R. G. F. May 1986. Evaluating costs of governmental food and agricultural policies. Staff Paper 86 E-353. Urbana-Champaign: Department of Agricultural Economics, University of Illinois.

Tweeten, Luther. 1988. Are farmers predestined to earn chronically low rates of return on resources in the absence of government support programs? Pp. 113-126 in Ray Goldberg, ed., *Research in Domestic and International Agribusiness Management*. Vol. 9. Cambridge, MA: JAI Press.

Tweeten, Luther. October 1988. Adjustment in agriculture and its infrastructure in the 1990s. Proceedings of National Agricultural Symposium on *Positioning Agriculture for the 1990s: A New Decade of Change*. NPA Report No. 238. Washington, DC: National Planning Association.

Tweeten, Luther. January 1989. Technological progress, productivity, and the production capacity of American agriculture. Paper presented to conference on *Surplus Capacity and Adjustment Problems of American Agriculture* held at St. Louis, Missouri. Columbus: Department of Agricultural Economics and Rural Sociology, The Ohio State University.

U.S. Department of Agriculture. October 1988. *Economic Indicators of the Farm Sector: National Financial Summary, 1987*. ECIFS7-1. Washington, DC: Economic Research Service, USDA.

U.S. Department of Agriculture. February 1989. *Economic Indicators of the Farm Sector: Costs of Production, 1987*. ECIFS7-3. Washington, DC: Economic Research Service, USDA.

U.S. Department of Agriculture. June 1989. *Agricultural Outlook*. AO-153. Washington, DC: Economic Research Service, USDA..

U.S. Department of Agriculture. May 1989. *Agricultural Income and Finance*. Washington, DC: Economic Research Service, USDA.

U.S. Department of Agriculture. April 1989. Second consecutive increase in U.S. farmland values. *Outlook and Situation Summary: Agricultural Resources*. Washington, DC: Economic Research Service, USDA.

U.S. Department of Agriculture. March 1989. World oilseed situation and market highlights. FOP3-89. Washington, DC: Foreign Agriculture Service,USDA.